

WHAT IS CLAIMED IS:

1. A method for automatically adjusting recording bit rates, the method
5 comprising the steps of:

(a) receiving a plurality of video programs;

(b) concurrently with step (a), analyzing said video programs into a plurality of
categories according to the contents of said video programs;

(c) determining target bit rates for the respective said video programs according to
10 the corresponding analysis outcome; and,

(d) encoding said video programs based on the corresponding target bit
rates determined in step (c).

2. The method of claim 1, further comprising the step of storing said encoded
15 video programs in a storage device.

3. The method of claim 1, wherein said target bit rates are determined according
to predetermined criteria.

20 4. The method of claim 3, wherein said predetermined data is selectively
changeable by a user.

5. The method of claim 1, wherein said target rates can be directly set by a user via a remote input device.

6. The method of claim 1, wherein the content of said video programs is analyzed into the plurality of said categories according to an electronic program guide (EPG) protocol.

7. The method of claim 1, wherein said video programs comprise conventional analog television signals, digital high definition television (HDTV), and digital standard definition television (SDTV) signals.

8. A method for automatically adjusting the recording quality of incoming video information, the method comprising the steps of:

(a) analyzing the content of said incoming video information into a plurality of categories according to predetermined criteria;

(b) determining compression rates for the respective video information according to the corresponding analysis outcome;

(c) compressing said incoming video information based on said determined compression rates; and,

(d) storing said compressed incoming video information on a storage medium.

9. The method of claim 8, wherein the content of said video information is analyzed according to an electronic program guide (EPG) protocol.

10. The method of claim 8, wherein said video programs comprise conventional analog television signals, digital high definition television (HDTV), and digital standard definition television (SDTV) signals.

5 11. The method of claim 8, wherein said predetermined data is selectively changeable by a user.

12. The method of claim 8, wherein said analyzing step (a) comprises the step of analyzing an electronic program guide (EPG) information included in said incoming video information.

13. The method of claim 8, wherein said compression rates can be directly set by a user via a remote input device.

15 14. An apparatus for automatically processing incoming video information, comprising:

means for analyzing the content of said incoming video information into a plurality of categories according to predetermined criteria;

means for determining a compression rate for said incoming video information according to predetermined criteria;

20 means for compressing said incoming video information based on said determined compression rate; and,

means for storing said compressed incoming video information.

15. The apparatus of claim 14, further comprising a control means for controlling
5 said compressing means according to said compression rate determined by said determining
means.

16. The method of claim 14, wherein said video programs comprise conventional
analog television signals, digital high definition television (HDTV), and digital standard
10 definition television (SDTV) signals.

17. The apparatus of claim 16, wherein said compression means comprises a first
means for compressing said analog signals and a second means for compressing said digital
signals.

18. The apparatus of claim 14, wherein the content of said video programs is
analyzed according to an electronic program guide (EPG) protocol.

19. The apparatus of claim 14, wherein said analyzing step comprises the step of
20 analyzing electronic program guide information included in said incoming video information.

20. The apparatus of claim 14, wherein said storing means is selected from a group consisting of a rewritable optical disk drive, a DVD drive, a magneto-optical disk drive, and a removable hard disk drive.

5 21. The apparatus of claim 14, wherein said determining means determines what portion of said storing means remains available for storing said video information provided to determine what compression rate is used to record said video information on said storing medium.

10 22. The apparatus of claim 14, further comprising a remote input device adapted to communicate with said apparatus to directly set said compression rates for said incoming video information.

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